Permutation without repetition

http://www.mathsisfun.com/combinatorics/images/permutation-no-repeat.png

where ***n*** is the number of things to choose from, and you choose ***r*** of them  
(No repetition, order matters)

Combinations without repetition

where ***n*** is the number of things to choose from, and you choose ***r*** of them  
(No repetition, order doesn't matter)